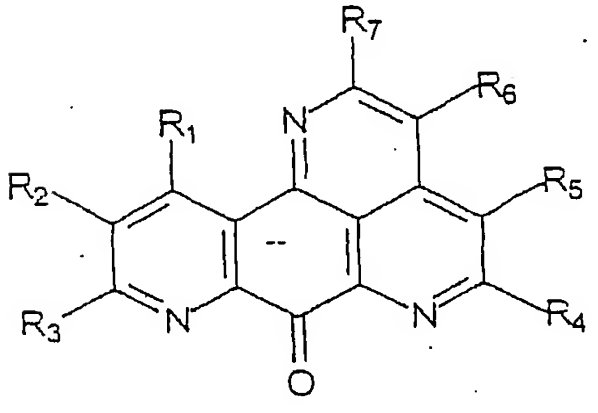
AMENDMENTS TO THE CLAIMS:

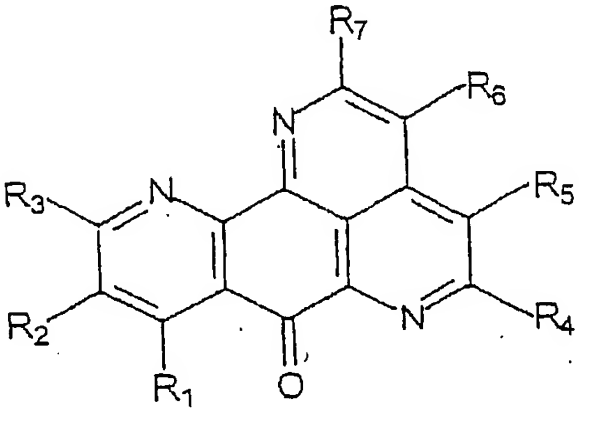
This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) Compounds of formulae:



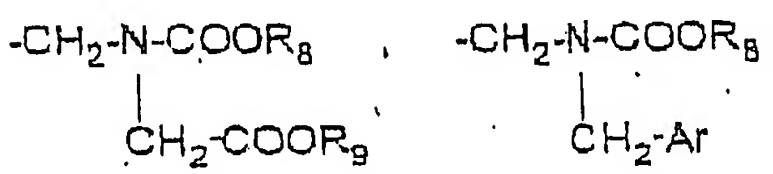
and



Formula I Formula Ia

in which:

R_1, R_2, R_3, R_4 and R_5 are selected from hydrogen, halogens, C_1-C_6 alkyl groups, hydroxyl, -CHO, $-OR_8$, -COOH, -CN, $-CO_2R_8$, $-CONHR_8$, $-CONR_8R_9$, $-NH_2$, $-NHR_8$, $-N(R_8)_2$, $-NH-CH_2-CH_2-N(CH_3)_2$, $-NH-CH_2-CH_2-Cl$, $-NHCOR_8$, morpholino, nitro, SO_3H,



R_8 and R_9 being selected from C_1-C_6 alkyl groups and phenyl (C_1-C_4) alkyl groups and Ar being a C_6-C_{14} aryl group,

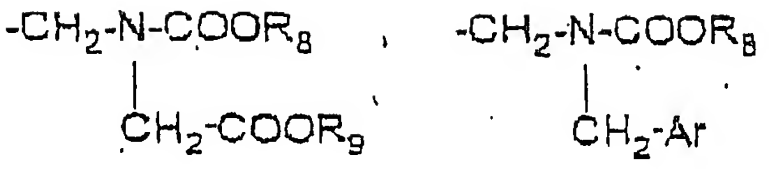
- R_6 is selected from hydrogen, halogens, C_1-C_6 alkyl or $-(CH_2)_nR_{10}$ groups with R_{10} being selected from halogens or -OH, (C1-C6) alkoxy or $-O-CO-(C_1-C_6)$ alkyl groups and n between 1 and 6, -CN, $-CO_2Et$ or $-COR_{11}$ groups with R_{11} being selected from C_1-C_6 and phenyl(C_1-C_4) alkyl groups, and $-NR_{12}R_{13}$ groups with R_{12} and R_{13} selected, independently of one another, from hydrogen or C_1-C_6 alkyl, phenyl (C_1-C_4) alkyl or $-(CH_2)_nR_{14}$ groups with R_{14} being selected from halogens or (C_1-C_6) alkoxy and $-N(CH_3)_2$ groups and n between 1 and 6,

- R_7 is selected from hydrogen, (C_1-C_6) alkyl, phenyl (C_1-C_4) alkyl, $-NR_{15}R_{16}$ with R_{15} and R_{16} selected, independently of one another, from hydrogen, ~~groups of type~~ C_1-C_6 alkyl and phenyl (C_1-C_4) alkyl and $-(CH_2)_nR_{17}$, with R_{17} selected from hydrogen, halogens or -OH or (C_1-C_6) alkoxy groups and n between 1 and 6,

and the addition salts of these compounds with pharmaceutically acceptable acids.

2. (previously presented) Compounds according to claim 1, which are compounds of formulae I or Ia in which:

R_1, R_2, R_3, R_4 and R_5 are selected from hydrogen, halogens, C_1-C_6 alkyl groups, hydroxyl, -CHO, $-OR_8$, -COOH, -CN, $-CO_2R_8$, $-CONHR_8$, $-CONR_8R_9$, $-NH_2$, $-NHR_8$, $-N(R_8)_2$, $-NH-CH_2-CH_2-N(CH_3)_2$, $-NHCOR_8$, morpholino, nitro, SO_3H,



R_8 and R_9 being selected from C_1-C_6 alkyl groups and Ar being a C_6-C_{14} aryl group.

3. (currently amended) Compounds according to claim 1, which are compounds of formulae I or Ia in which:

R_1, R_2, R_3, R_4 and R_5 are selected from hydrogen, halogens, C_1-C_6 alkyl groups, hydroxyl, $-OR_8$, NO_2, $-NH_2$, $-NHR_8$, $-NH(R_8)_2$, $-NH-CH_2-CH_2-N(CH_3)_2$, $-NH-CH_2-CH_2-Cl$, $-NHCOR_8$, R_8 being selected from C_1-C_6 alkyl groups,

- R_6 is selected from hydrogen, $-(CH_2)_nR_{10}$ groups, with R_{10} being selected from halogens, the $-O-CO-CH_3$ group, C_1-C_6 alkyl groups and $NR_{12}R_{13}$ groups with R_{12} and R_{13} selected, independently of one another, from hydrogen or C_1-C_6 alkyl, benzyl or $-(CH_2)_nR_{14}$ groups, with R_{14} being selected from halogens or (C_1-C_6) alkoxy and $-N(CH_3)_2$ groups and n between 1 and 6,

- R_7 selected from hydrogen or ~~groups of type~~ (C_1-C_6) alkyl, benzyl, $-NR_{15}R_{16}$ with R_{15} and R_{16} selected from hydrogen, ~~groups of type~~ C_1-C_6 alkyl and benzyl, and $-(CH_2)_nR_{17}$, with R_{17} selected from hydrogen, halogens or -OH or (C_1-C_6) alkoxy groups and n between 1 and 6,

and the addition of salts of these compounds with pharmaceutically acceptable acids.

4. (original) Compounds according to claim 3, which are compounds of formulae I or Ia in which at least one of the R_1, R_2, R_3, R_4 and R_5 groups is an OR_8 group.

5. (original) Compounds according to claim 3, which are compounds of formulae I or Ia in which:

R_1 is selected from hydrogen, halogens or hydroxyl, methoxy, nitro, $-NH_2$, $-NHCH_3$, $-NH-CH_2-CH_2-N(CH_3)_2$, $-NH-CH_2-CH_2-Cl$ or $-NHCOCH_3$ groups,

R_2 is hydrogen,

R_3 and R_5 are selected from hydrogen or hydroxyl or methoxy groups

and the addition salts of these compounds with pharmaceutically acceptable acids.

6. (original) Compounds according to claim 3, which are compounds of formula (I):

11-methoxy-7*H*-pyrido[4,3,2-*de*][1,7]phenanthroline-7-one,

11-chloro-7*H*-pyrido[4,3,2-*de*][1,7]phenanthroline-7-one,

4-methoxy-7*H*-pyrido[4,3,2-*de*][1,7]phenanthroline-7-one,

4,11-dimethoxy-7*H*-pyrido[4,3,2-*de*][1,7]-phenanthroline-7-one,

4,9-dimethoxy-7*H*-pyrido[4,3,2-*de*][1,7]-phenanthroline-7-one,

9-methoxy-7*H*-pyrido[4,3,2-*de*][1,7]phenanthroline-7-one,

9,11-dimethoxy-7*H*-pyrido[4,3,2-*de*][1,7]-phenanthroline-7-one,

3-acetoxymethyl-7*H*-pyrido[4,3,2-*de*][1,7]-phenanthroline-7-one,

3-acetoxymethyl-9-methoxy-7*H*-pyrido[4,3,2-*de*]-[1,7]phenanthroline-7-one,

2-(2-chloroethyl)-7*H*-pyrido[4,3,2-*de*][1,7]-phenanthroline-7-one,

and the addition salts of these compounds with pharmaceutically acceptable acids.

7. (original) Compounds according to claim 3, which are compounds of formula (Ia):

8-methoxy-7*H*-pyrido[4,3,2-*de*][1,10]phenanthroline-7-one,

8-chloro-7*H*-pyrido[4,3,2-*de*][1,10]phenanthroline-7-one,

4-methoxy-7*H*-pyrido[4,3,2-*de*][1,10]phenanthroline-7-one,

4,8-dimethoxy-7*H*-pyrido[4,3,2-*de*][1,10]-phenanthroline-7-one,

4,10-dimethoxy-7*H*-pyrido[4,3,2-*de*][1,10]-phenanthroline-7-one,

10-methoxy-7*H*-pyrido[4,3,2-*de*][1,10]- phenanthroline-7-one,

8,10-dimethoxy-7*H*-pyrido[4,3,2-*de*][1,10]-phenanthroline-7-one,

3-acetoxymethyl-7*H*-pyrido[4,3,2-*de*][1,10]-phenanthroline-7-one,

3-acetoxymethyl-9-methoxy-7*H*-pyrido[4,3,2-*de*]-[1,10]phenanthroline-7-one,

2-(2-chloroethyl)-7*H*-pyrido[4,3,2-*de*][1,10]-phenanthroline-7-one,

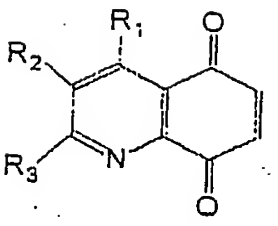
and the addition salts of these compounds with pharmaceutically acceptable acids.

8. (previously presented) Pharmaceutical composition comprising an effective amount of a compound selected from the compounds according to claim 1 for treating, by virtue of their cytotoxic properties, cancerous tumours and their metastases.

9. (canceled)

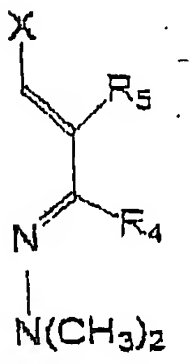
10. (previously presented) Process for the preparation of compounds according to claim 1, which consists in:

a) reacting, according to a hetero Diels-Alder reaction, a quinolinedione of formula:



IV

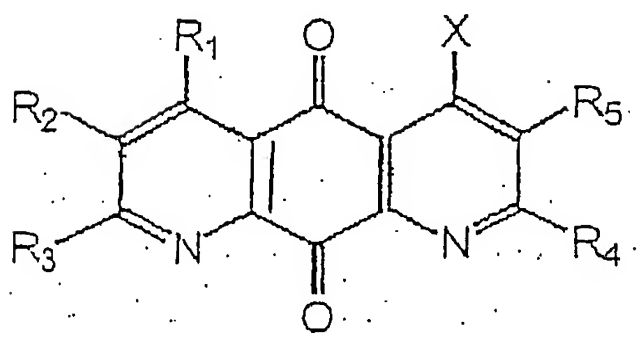
and an azadiene of formula



V

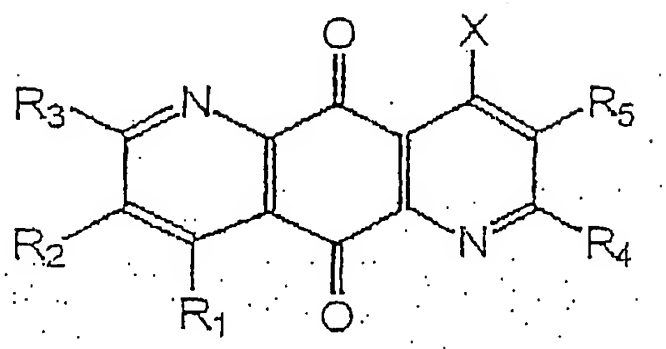
where X = CH_3,

in order to obtain a mixture of compounds



Formula II

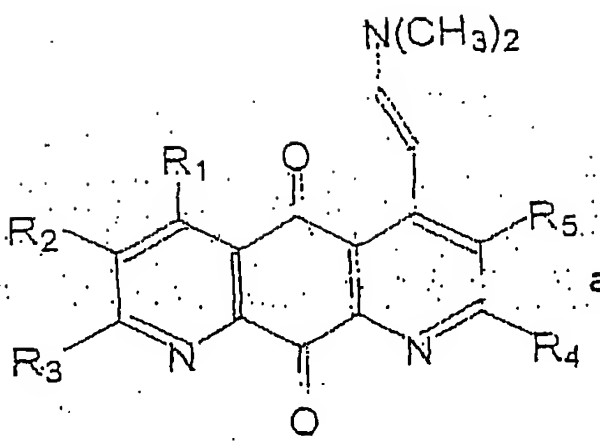
+



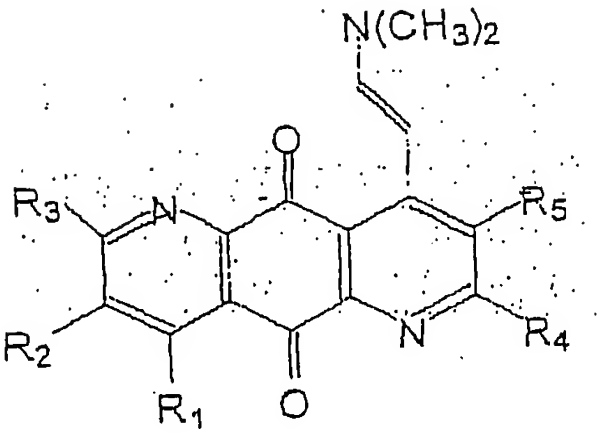
Formula IIa

b) optionally separating the compounds of formulae II and IIa,

c_1) subsequently reacting a compound of formulae II and or IIa with dimethylformamide dimethyl acetal, in order to obtain an enamine of formula:



and/or



Formula III

Formula IIIa

then functionalizing the enamines, in order to introduce the R_6 and/or R_7 substituents, and cyclizing, in order to obtain the compounds of formulae I and/or Ia,

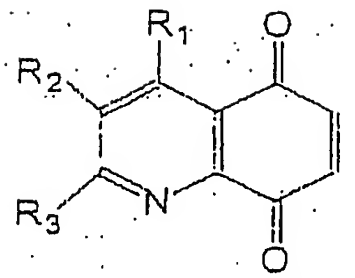
or

c_2) functionalizing and cyclizing at the same time, in order to obtain the compounds of formulae I and/or Ia,

d) optionally separating the compounds of formulae I and Ia.

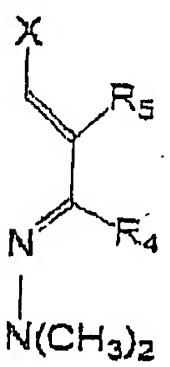
11. (previously presented) Process for the preparation of compounds according to claim 1 of formulae I or Ia in which ~~R6~~ and R7 are hydrogen atoms, which consists:

a) in reacting, according to a hetero Diels-Alder reaction, a quinolinedione of formula:



IV

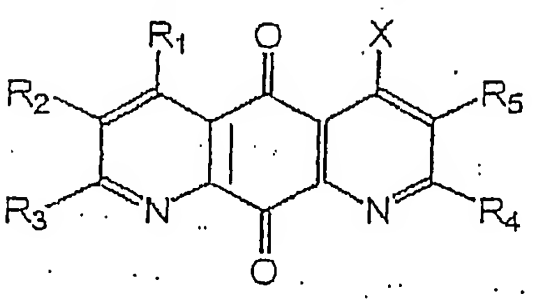
and an azadiene of formula



V

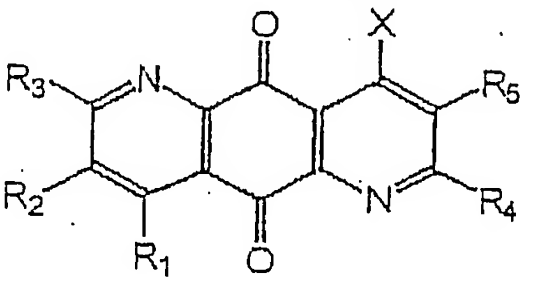
where X = CH_2-CH_2-NHBoc, wherein Boc corresponds to tert-butoxycarbonyl,

in order to obtain a mixture of compounds



Formula II

+



Formula IIa

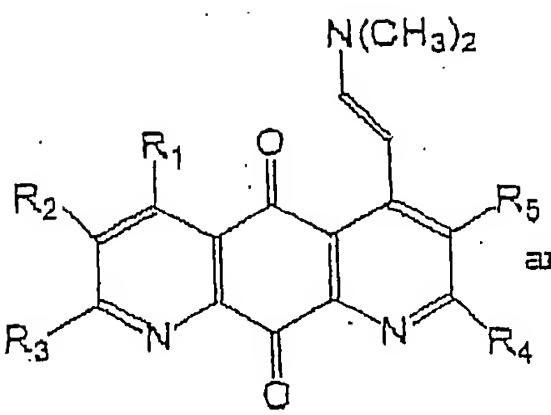
b) optionally separating the compounds of formulae II and IIa,

c) cyclizing a compound of formulae II and/or IIa, in order to obtain a compound of formulae I and/or Ia,

d) optionally separating the compounds of formulae I or Ia.

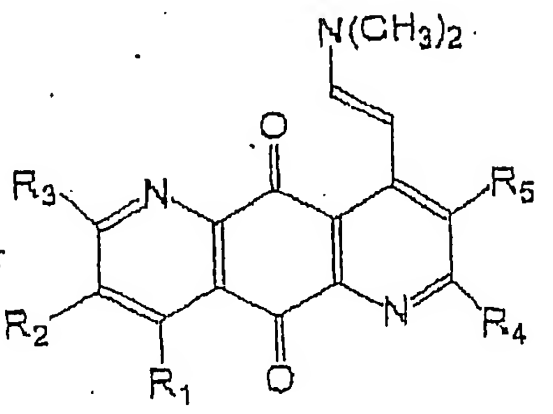
12. (canceled)

13. (previously presented) Enamine of formula:



Formula III

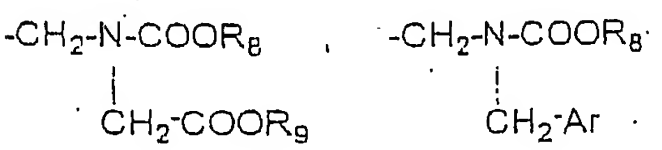
and/or



Formula IIIa

in which:

R_1, R_2, R_3, R_4 and R_5 are selected from hydrogen, halogens, C_1-C_6 alkyl groups, hydroxyl, -CHO, -OR_8, -COOH, -CN, -CO_2R_8, -$CONHR_8$, -$CONR_8R_9$, -NH_2, -NHR_8, -$N(R_8)_2$, -NH-CH_2-CH_2-$N(CH_3)_2$, -NH-CH_2-CH_2-Cl, -$NHCOR_8$, morpholino, nitro, SO_3H,



R_8 and R_9 being selected from C_1-C_6 alkyl groups and phenyl (C_1-C_4) alkyl groups and Ar being a C_6-C_{14} aryl group.

14. (currently amended) ~~The method according to claim 12~~ A method for treating a solid tumour in a patient, which consists in administering, to said patient, an effective amount of a compound according to claim 1, and wherein said solid tumour ~~includes and/or is involved in~~ are selected from the group

consisting of cerebral tumours, lung cancers, ovarian tumours, breast tumours, endometrium cancers, colorectal cancers, prostate cancers, testicular tumours, ~~globlastomas~~ glioblastomas, astrocytomas, non-cell-lung cancers, bladder cancers, carcinomas and adeno carcinomas.

15. (canceled)

16. (canceled)

17. (new) A method for treating a solid tumour in a patient, comprising administering to said patient an effective amount of a compound according to claim 1, and wherein said solid tumour is selected from the group consisting of cerebral tumours, lung cancers, ovarian tumours, breast tumours, endometrium cancers, colorectal cancers, prostate cancers, testicular tumours, glioblastomas, astrocytomas, non-cell-lung cancers, bladder cancers, carcinomas and adeno carcinomas.